

ORIGINAL ARTICLE

Two new species and a key to species of the genus *Proscleropterus* Korotyaev (Coleoptera: Curculionidae) from China

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Abstract The weevil genus *Proscleropterus* Korotyaev, 2008 (Coleoptera: Curculionidae: Ceutorhynchinae: Scleropterini) has been recorded endemic from China and is comprised of three species, including two new species: *P. shennongjianus* Qin & Huang, **sp. nov.** and *P. rudis* Colonnelli, Qin & Huang, **sp. nov.** A key to the three species and illustrations are provided. In addition, *Rubus eucalyptus* Focke (Rosaceae) is recorded as the host plant of *P. shennongjianus* Qin & Huang, **sp. nov.**

Key words Ceutorhynchinae, Scleropterini, *Proscleropterus*, China, new species, taxonomy.

1 Introduction

The weevil genus *Proscleropterus* Korotyaev, 2008 (Coleoptera: Curculionidae: Ceutorhynchinae), which is closely related to the genus *Scleropterus* Schoenherr, 1825, was described by Korotyaev (2008) based on the single species, *P. davidiani* Korotyaev, 2008 from Sichuan, China. It was considered by him as the most primitive taxon in the tribe Scleropterini of the subfamily Ceutorhynchinae. The genus is characterized (Korotyaev, 2008) by its slender rostrum, relatively elongate elytra with strongly prominent humeri and several strongly developed large tubercles (Figs 1–2), rostral channel ill-defined on meso- and metasternum and open on metasternum (Fig. 3), and elytra fused together being the hind wings non-functional although present (Fig. 4).

Here we describe two new species: *Proscleropterus shennongjianus* Qin & Huang, **sp. nov.** and *P. rudis* Colonnelli, Qin & Huang, **sp. nov.**, both from China.

2 Material and methods

Specimens examined for this study are from the Institute of Zoology, Chinese Academy of Sciences, Beijing, China (IZCAS), Institute of Forestry Protection, Zhejiang A & F University, Zhejiang, China (ZAFU). We also examined two paratypes of *P. davidiani* in Colonnelli collection (ECC, Enzo Colonnelli collection), Rome, Italy.

External structures were observed under stereoscopic microscopes, either Nikon SMZ1500 or Nikon AZ100.

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Measurements of body parts are defined and abbreviated as follows:

LB—body length, from apex of the pronotum to apex of elytra;

LR—rostrum length, in lateral view;

WP—maximum width of pronotum;

LP—pronotum length, from base to apex along midline;

WE—maximum width of elytra;

LE—elytral length, from their basal margin to apex.

All measurements are in millimeters. Habitus photographs of Figures 1–2, 13–14, 27–28 were taken with a Nikon D90 camera provided with an AF Micro Nikon 60mm 1:1.28 lens. Habitus photographs of Figures 5–12, 16–17, 30–31 were taken using a Keyence VHX-2000, lens of VH-Z20R/Z20W stereoscopic microscope. Habitus photographs of Figures 3–4, 15, 18–26, 29, 32–40 were taken using a Nikon AZ100 stereoscopic microscope. To examine terminalia, specimens were macerated in hot water and dissected under the stereoscopic microscopes mentioned above. The abdomen was removed from the body and then cleaned in hot 10% NaOH solution for 5–10 minutes. Terminalia were extracted from the abdomen and mounted on slides with glycerol (male) or pure water (female).

3 Taxonomy

Proscleropterus Korotyaev, 2008

Proscleropterus Korotyaev, 2008: 99.

Type species *Proscleropterus davidiani* Korotyaev, 2008.

Comments. The genus and its two close relatives *Scleropteroides* Colonnelli, 1979 and *Scleropterus* Schoenherr, 1825 share the structures of head with obvious median carina on vertex, convex eyes, antennal funicle 6-segmented, rostral channel extended up to apical margin of mesosternum, elytral intervals bearing sharp granules, dentate femora, mid and hind tibia mucronate in male.

The rostrum is slender and not wider than fore femur in both *Scleropteroides* and *Proscleropterus*, whereas it is thick and wider than fore femur in *Scleropterus*. The rostral channel on meso- and metasternum is ill-defined and open on metasternum in *Proscleropterus*, whereas in *Scleropteroides* and *Scleropterus* it is deep, limited by keels, and closed.

Scleropteroides has strongly prominent humeri, well-developed hind wings 1.9 times as long as elytra in *S. hypocrita* (Hustache), and its flying ability was observed in the field. *Scleropterus* has barely prominent humeri, elytra fused, and lacks of hind wings. *Proscleropterus* shows moderate humeri and reduced hind wing, not more than 1.8 times as long as elytra in *P. shennongjianus* Qin & Huang, **sp. nov.** (Fig. 4), and fused elytra, indicating that the hind wings of members of this genus are non-functional, and their status is somewhat intermediate between *Scleropteroides* and *Scleropterus*.

Elytral intervals of *Proscleropterus* bear large sharp granules and strongly prominent tubercles, while those of *Scleropteroides* have small and evenly scattered granules, without prominent tubercles, and those of *Scleropterus* have large sharp granules and no tubercles in the type species *S. serratus* (Germar, 1824), or weak ones in *S. rubi* Korotyaev, 1980, *S. berezovskii* Korotyaev, 1992, and *S. sinensis* Korotyaev, 1992.

Aedeagus body, apical projection excepted, is very similar in all the species of *Scleropteroides* (Huang *et al.*, 2014), whereas that of *Scleropterus* exhibits a little variation in the general appearance (Korotyaev, 2008). The aedeagus of *Proscleropterus davidiani* Korotyaev is long, narrow and widely rounded apically, while that of the two new species is short and broad and apically with blunt projection, being thus quite similar to that of *Scleropteroides*. Both new species have similar aedeagus body and other structures of genitalia.

Recorded host plants of *Scleropteroides*, *Scleropterus* (Colonnelli, 2004; Huang *et al.*, 2014), and of *Proscleropterus shennongjianus* Qin & Huang, **sp. nov.** are in the genus *Rubus* (Rosaceae), genus particularly diverse in temperate regions of northern hemisphere, China comprised (Wu *et al.*, 1994).

Key to *Proscleropterus* species.

1. Pronotum bearing only one pair of weak tubercles and with subparallel sides, elytra subparallel on basal 2/3 and bearing larger and sharper granules on elytral intervals (Figs 1–2) ***P. davidiani* Korotyaev**
Pronotum bearing two pairs of sharp large tubercles along middle of lateral sides, and widening on basal half 2
2. Body thinner, elytra subcordate with sides evenly converging towards apex, outline of sides in dorsal view not abruptly interrupted by tubercles on intervals (Fig. 15)..... ***P. shennongjianus* Qin & Huang, sp. nov.**

Body plumper, elytra oval with sides gradually converging towards apex, outline of sides in dorsal view somewhat abruptly interrupted by tubercles on intervals (Fig. 29) *P. rudis* Colonnelli, Qin & Huang, sp. nov.

***Proscleropterus davidiani* Korotyaev, 2008** (Figs 1–2)

Proscleropterus davidiani Korotyaev, 2008: 100.

Diagnosis. Although very similar in general appearance to the two new species here described, *P. davidiani* can be



Figures 1–2. *Proscleropterus davidiani*, male. 1. Dorsal habitus. 2. Lateral habitus.

easily differentiated from both of them by its more elongate body, its relatively lengthened subparallel-sided pronotum, and relatively long elytra subparallel-sided on basal 2/3, and bearing larger and sharper granules on elytral intervals.

Materials examined. Paratypes. 1♂1♀, China, Sichuan, right bank of Lanhegou, River NW of Mt. Ubaoshan, E of Jimi, 3000–3200 m, 28–29-VI-2000, leg. Davidian G. E (ECC).

Distribution. China (Sichuan; Fig. 44).

Biological notes. Plant association unknown.



Figures 3–4. *Proscleropterus shennongjianus* Qin & Huang, *sp. nov.*, male. 3. Rostral channel. 4. Left wing.

Proscleropterus shennongjianus* Qin & Huang, *sp. nov. (Figs 5–8, 13–26, 41–43)

Types. Holotype. ♂ (ZAFU), "China: Hubei, Shennongjia-linquin, Muyu-zhen, Zhangbaohe, 106°72.26'N, 116°40.39'E, 21-V-2012, leg. J. Huang & L. Yang, CU00045". Paratypes. 5♂2♀, same data as holotype but "CU00046–00052" (ZAFU); 1♂2♀, same data as holotype but "22-V-2012, leg. L. Yang, CU00053–00055" (ZAFU); 1♀, same data as holotype but "22-V-2012, J. Huang, CU00056" (ZAFU).

Description. Males ($n=7$). LB 2.30–2.69 mm (mean, 2.46 mm); LR 0.96–1.13 mm (mean, 1.03 mm); WP 0.76–0.91 mm (mean, 0.82 mm); LP 0.68–0.88 mm (mean, 0.75 mm); WE 1.27–1.48 mm (mean, 1.36 mm); LE 1.37–1.59 mm (mean, 1.47 mm).

Body dark brown; elytra more or less shining; eyes brown; antennae reddish-brown; legs from reddish-brown to dark brown. Habitus as shown in Figures 13–15.

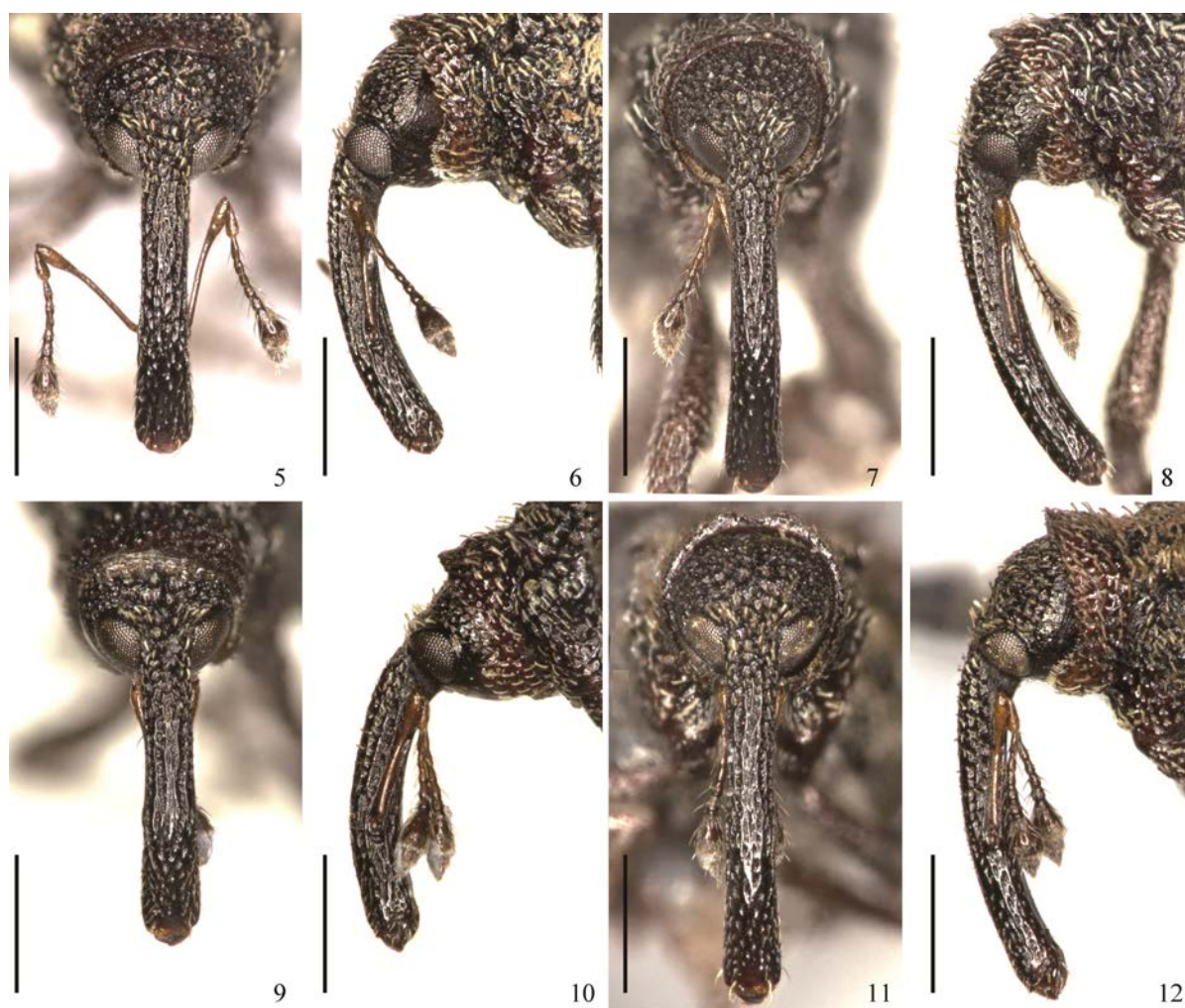
Vestiture. Body surface covered with more or less ochreous pollinosity in living specimens. Head (Figs 5–6) covered with brownish clavate scales, and sparse white or yellowish clavate scales behind eyes and on frons, being the median carina clothed with whitish or yellowish clavate scales at base; basal margin fringed with white ovate recumbent scales. Rostrum (Figs 5–6) clothed with white clavate scales on base and brown clavate scales on basal half; scales directed basally, gradually becoming slenderer towards apex, and replaced by hair-like scales on apical third. Prothorax (Figs 13, 15) mainly covered with clavate scales as those on head, with longitudinal stripe of white clavate and oval scales on median and lateral surface which form three well-defined narrow white or yellowish longitudinal stripes. Elytra (Figs 13–15) bearing brown clavate scales on each interval and white clavate scales along apical margin, whereas sparse slender linear scales directed apically are on striae. Legs (Fig. 14) densely covered with white and brown scales; femora and tibiae mostly covered with clavate semirecumbent scales, except semirecumbent hair-like scales along inner margin; corbel of each tibia fringed with brown setae. Underside generally covered with white from lanceolate to oval recumbent scales mingled with white and brown clavate scales; ventrites (Fig. 16) I and II bearing white lanceolate scales mingled with clavate scales; III and IV with a row of sparse white clavate scales; V bearing dense hair-like brown scales in median concavity and white lanceolate scales on each side. Pygidium (Fig. 17) covered with slender linear brown scales, and short apically pinnate scales on basal part.

Head (Figs 5–6) coarsely reticulately punctured. Vertex with obvious median carina from base to apex; frons moderately deeply depressed, its apex almost equal in width to the base of rostrum and then strongly widened basally. Eyes medium-sized, moderately convex and triangularly rounded. Rostrum slender, 1.29–1.47 times as long as pronotum,

4.58–5.87 times as long as wide at apex, evenly curved; sides subparallel on basal half, then moderately widening near antennal insertion, and gradually so towards apex where rostrum is 1.15–1.29 times as wide as base. Dorsal surface of rostrum densely rugosely punctured except at apex, punctures forming ill-defined wrinkles; these punctures are medium-sized and slightly elongate from base up to between antennal insertion, then they become smaller, sparser, and shallower towards apex. Antennae inserted at 0.47 length of rostrum from apex; scape moderate in length, evidently clavate, round and fringed with 2 short setae at apex, funicle six-segmented; club lanceolate, finely pubescent except on basal part; scape 0.97 times as long as the funicle, length ratio of funicular segments I: II: III: IV: V: VI = 2.71: 1.79: 1.31: 1.14: 1.00: 1.02 and width ratio = 1.42: 1.00: 1.08: 1.09: 1.27: 1.45.

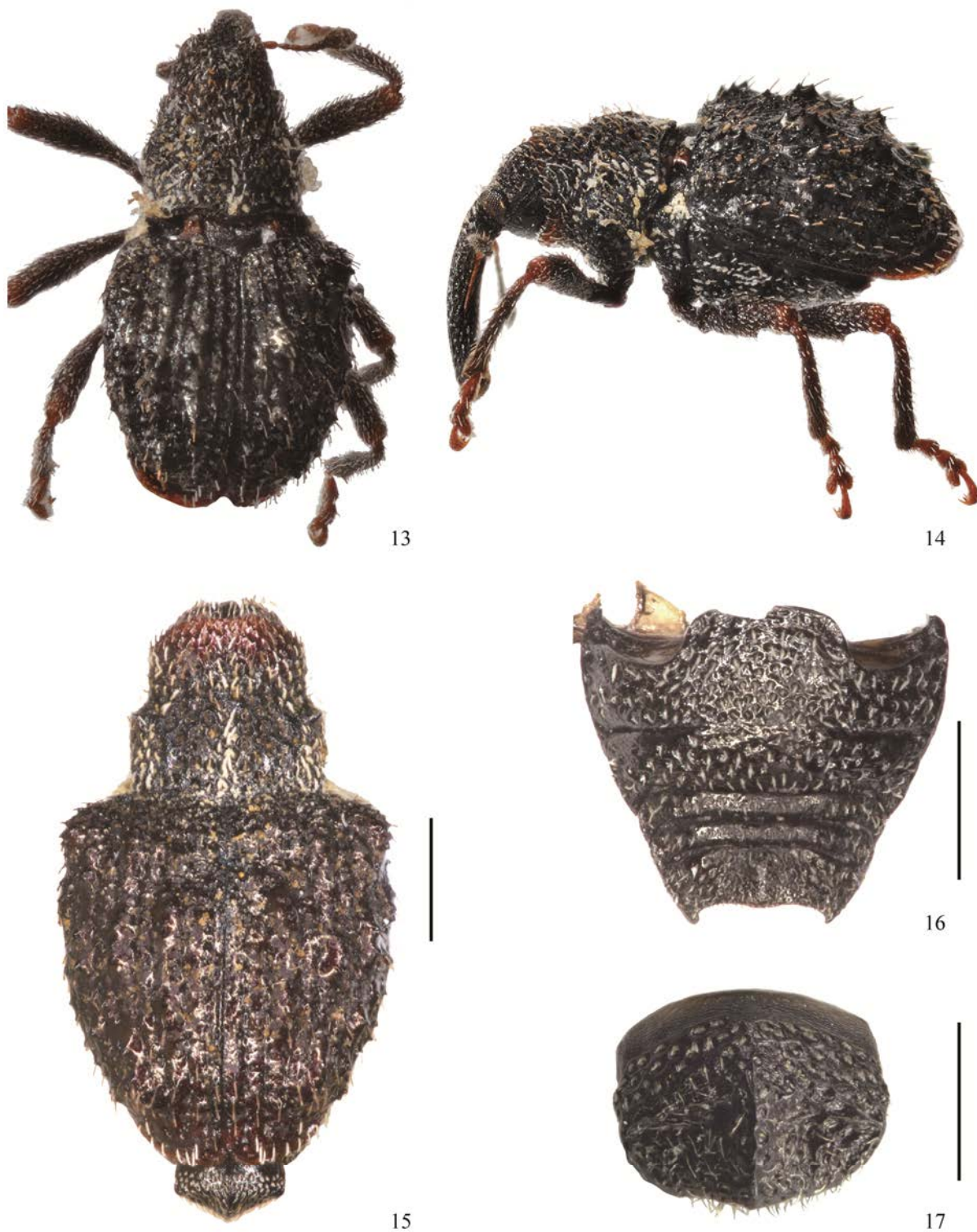
Pronotum (Figs 13, 15) 1.03–1.17 times as wide as long, 0.47–0.57 times as long and 0.55–0.64 times as wide as elytra. Pronotum with two pairs of median tubercles along lateral sides which are subparallel on basal half, strongly convergent between the tubercles and then subparallel on apical half; median sulcus shallow on basal half; disc densely coarsely punctured, punctures of apical and basal parts smaller, apical margin weakly raised, moderately produced over head, with median incision. Base not margined, punctuation reaching basal edge and leaving no smooth line at base. Scutellum oval-shaped.

Elytra (Figs 13–15) subcordate, 1.06–1.11 times as long as wide, 1.76–2.10 times as long and 1.55–1.79 times as wide as pronotum, with strongly prominent humeri and large sharp granulate tubercles on base of interval VIII; widest at basal fifth, evenly and gradually convergent apically. Striae relatively narrow but often bending around numerous large tubercles on intervals; punctures separated by a distance about twice their diameter. Intervals slightly shining, flat between tubercles. Interval I with a row of sparse granules on apical 3/4; interval II with 2–3 sparse granules on basal fifth, and with a weakly elongate tubercle composed of 5–6 merged granules on middle of one elytron, or with 2 feebly elongate

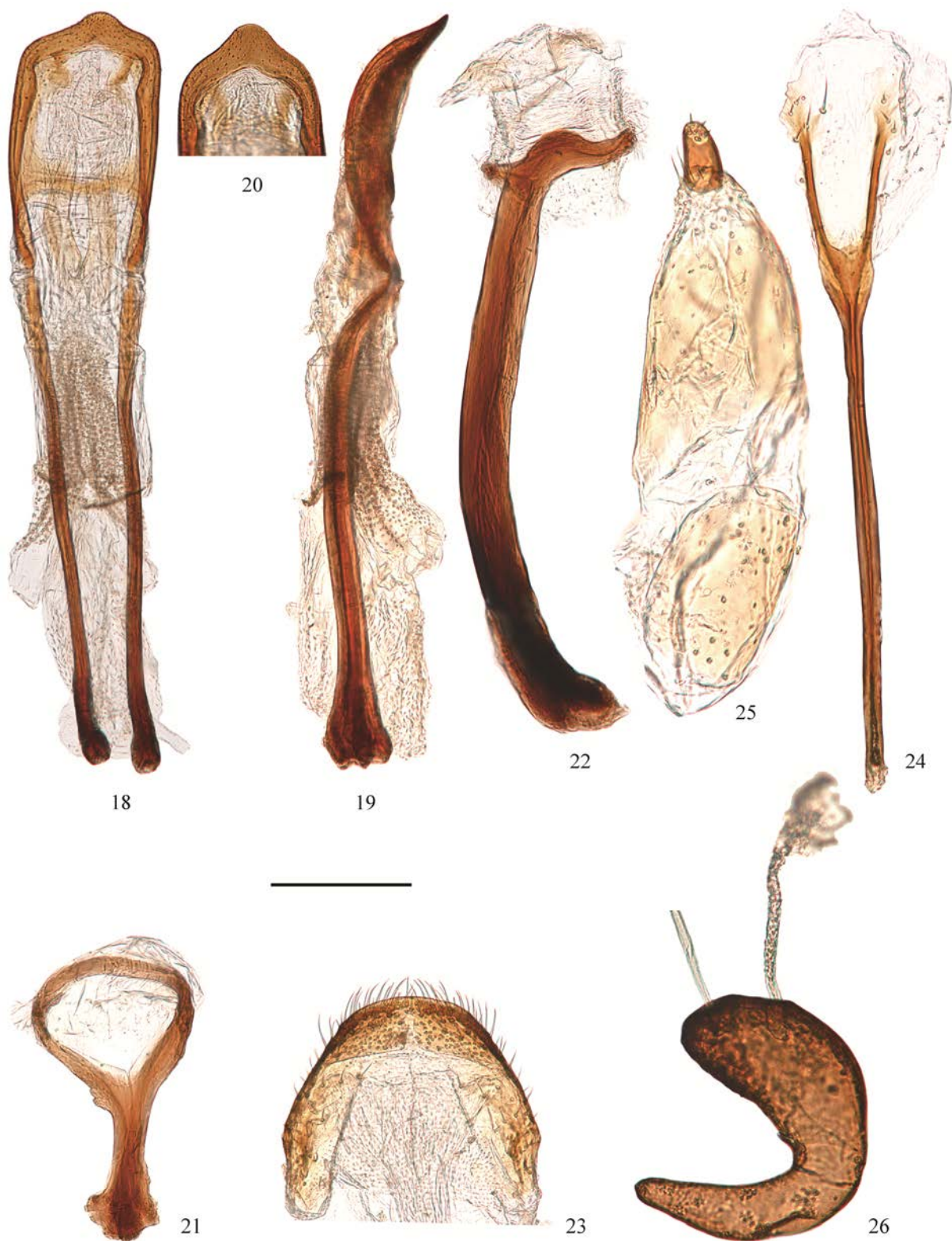


Figures 5–12. *Proscleropterus* spp., head. 5–8. *P. shennongjianus* Qin & Huang, **sp. nov.** 9–11. *P. rudis* Colonnelli, Qin & Huang, **sp. nov.** 5–6, 9–10. Male. 7–8, 11–12. Female. 5, 7, 9, 11. Dorsal view. 6, 8, 10, 12. Lateral view. Scale bars = 0.50 mm.

tubercles composed of 2–3 merged granules on the other elytron; interval III with 3 weakly convex granules near base and two moderately large oblong or round tubercles composed of 2–3 merged granules basad and apicad of middle, followed by an additional convex granule and a row of sparse granules on apical part; interval IV narrow and just bearing a few sharp granules along the entire length; interval V with rather large short 5-capitate tubercle near the base, another small tubercle composed of 2 merged granules basad of middle, a sharp granule apicad of it and a round 5–7 capitate tubercles on apical fourth; interval VI with sculpture similar to that of IV; interval VII with a few large sharp granules



Figures 13–17. *Proscleropterus shennongjianus* Qin & Huang, **sp. nov.**, male. 13, 15. Dorsal habitus. 14. Lateral habitus. 16. Ventrites. 17. Pygidium. Scale bars: 15–17=0.50 mm.



Figures 18–26. *Proscleropterus shennongjianus* Qin & Huang, **sp. nov.**, male and female genitalia, from Hubei, China. 18–22. Male. 18. Aedeagus, dorsal view. 19. Aedeagus, lateral view. 20. Apex of the aedeagal body, dorsal view. 21. Tegmen. 22. Sternites IX. 23–26. Female. 23. Tergite VIII. 24. Sternite VIII. 25. Coxite and stylus. 26. Spermatheca. Scale bars: 18–25 = 0.20 mm; 26 = 0.40 mm.

scattered along its basal half, and a tubercle composed of 2–3 merged granules apicad of middle; interval VIII with large tubercles at base, then 2–3 granules basad and apicad of middle followed by sparse granules on apical part; interval IX with a weak tubercle composed of 3 merged granules on basal third, then with irregularly sparse granules from middle to apical fourth, and a much weak tubercle composed of 2 smaller granules on apical fourth; the rest of intervals with simple, small irregular granules.

Legs (Figs 13–14) slender; femora slightly clavate, each armed with small tooth; tibiae not curved at apex; protibiae simple, lacking mucro at apex; meso- and metatibiae with moderate mucrones, mesotibial ones as long as tarsal claw, metatibial mucrones shorter than tarsal claw; tarsi moderate in length; claws with appendages as long as 4/5 of claw.

Underside (Figs 3, 16). Prosternum coarsely and moderately punctured; mesoventrite with sparser punctures on disc and dense fine punctures on sides; metaventrite with medium-sized punctures and with slight median sulcus; lateral pieces of meso- and metaventrites with dense coarse medium-sized punctures. Procoxae and mesocoxae strongly inflated (Fig. 3). Rostral channel long, extending to the level of posterior margins of mesocoxal cavities. Ventrites (Fig. 16) with coarse and more or less dense punctures; ventrites III and IV with only one row of coarse and sparse punctures; ventrite V with subtriangular median concavity along basal margin; length ratio of ventrites I: II: III: IV: V = 3.55: 2.37: 1.06: 1.00: 2.38 and width ratio = 1.40: 1.62: 1.26: 1.15: 1.00. Pygidium (Fig. 17) moderately transverse, about 1.14 times as wide as long, coarsely and moderately punctured and with fine median carina.

Terminalia and genitalia. Penis (Figs 18–19) broad, relatively thick in lateral profile; sides weakly widening from base to apical 1/6, then strongly converging apically; apical projection (Fig. 20) blunt, rounded at apex. Endophallus (Fig. 18) with a pair of plate-like sclerites on apical part, and a pair of tubular structures on basal part. Spiculum gastrale (Fig. 22) robust, bent leftward and by far exceeding the length of aedeagal body or its apodeme. Tegmen (Fig. 21) with apodeme more or less stout, nearly as long as the diameter of the tegminal ring, more or less widening toward apex.

Female ($n=5$). LB 2.52–2.86 mm (mean, 2.70 mm). LR 1.10–1.38 mm (mean, 1.23 mm). WP 0.82–0.96 mm (mean, 0.88 mm). LP 0.71–0.89 mm (mean, 0.80 mm). WE 1.30–1.59 mm (mean, 1.49 mm). LE 1.44–1.77 mm (mean, 1.63 mm).

Rostrum (Figs 7–8) slightly slenderer, 1.56–1.67 times as long as pronotum, about 1.25 times as long as in male. Antennae inserted just behind the middle of the rostrum.

Pronotum 1.07–1.16 times as wide as long.

Elytra 0.99–1.14 times as long as wide.

Tibiae simple, not mucronate.

Ventrites I and II moderately inflated, sparsely punctured. Ventrite V with shallow median concavity. Pygidium smaller than that of male, 1.31 times wider than long.

Terminalia and genitalia. Tergite VIII (Fig. 23) with pair of combs of dense, long setae along apical margin. Sternite VIII (Fig. 24) with a pair of patches of several minute setae near apex; arms slender and apically fused, about 0.5 times as long as apodeme, nearly half as long as coxite and stylus combined. Coxites (Fig. 25) robust, subdivided into two pieces, about 8.0 times as long as styli; styli apicolaterally inserted, moderate in length, nearly 2.0 times as long as wide. Spermatheca (Fig. 26) C-shaped, collum hardly convex; ramus indistinct, outline almost uniformly continuous; cornu slender, strongly curved and attenuate.

Otherwise as in male.

Etymology. The species is named after its type locality, Shennongjia Mountains, Hubei province, China.

Distribution. China (Hubei; Fig. 44).

Biological notes. Adults of this species were collected on flowering *Rubus eucalyptus* Focke (Rosaceae) (Figs 41–43).

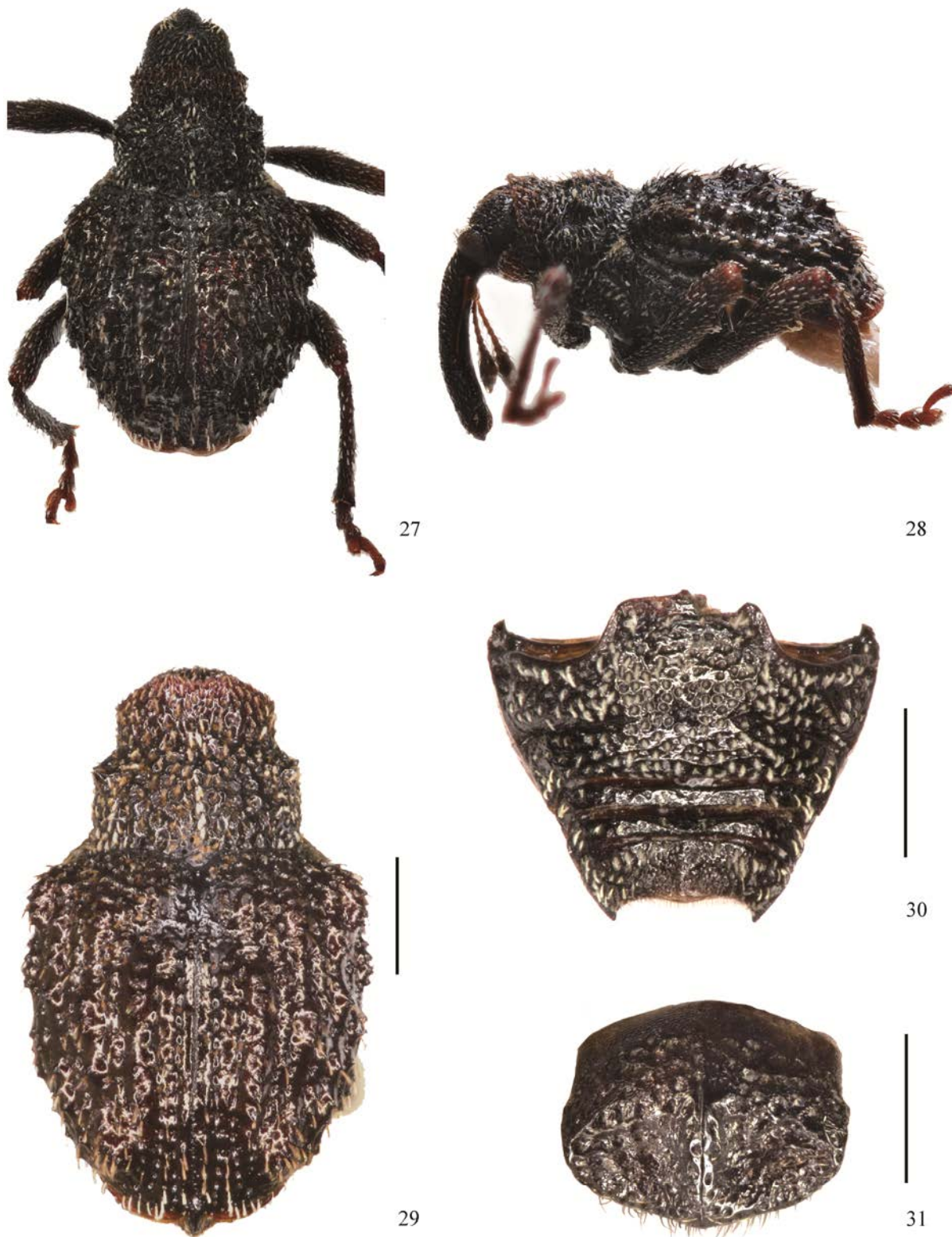
Remarks. The new species differs from *P. davidiani* in having pronotum with two pairs of sharp large median tubercles on lateral sides and then widening on basal half, elytra subcordate and evenly converging towards apex, while in *P. davidiani* pronotum bears only one pair of weak tubercles and is subparallel-sided, elytra are more elongate and subparallel-sided on basal half. Moreover, *P. davidiani* has larger granules and different distribution of tubercles on elytral intervals.

***Proscleropterus rudis* Colonnelli, Qin & Huang, sp. nov. (Figs 27–40, 44)**

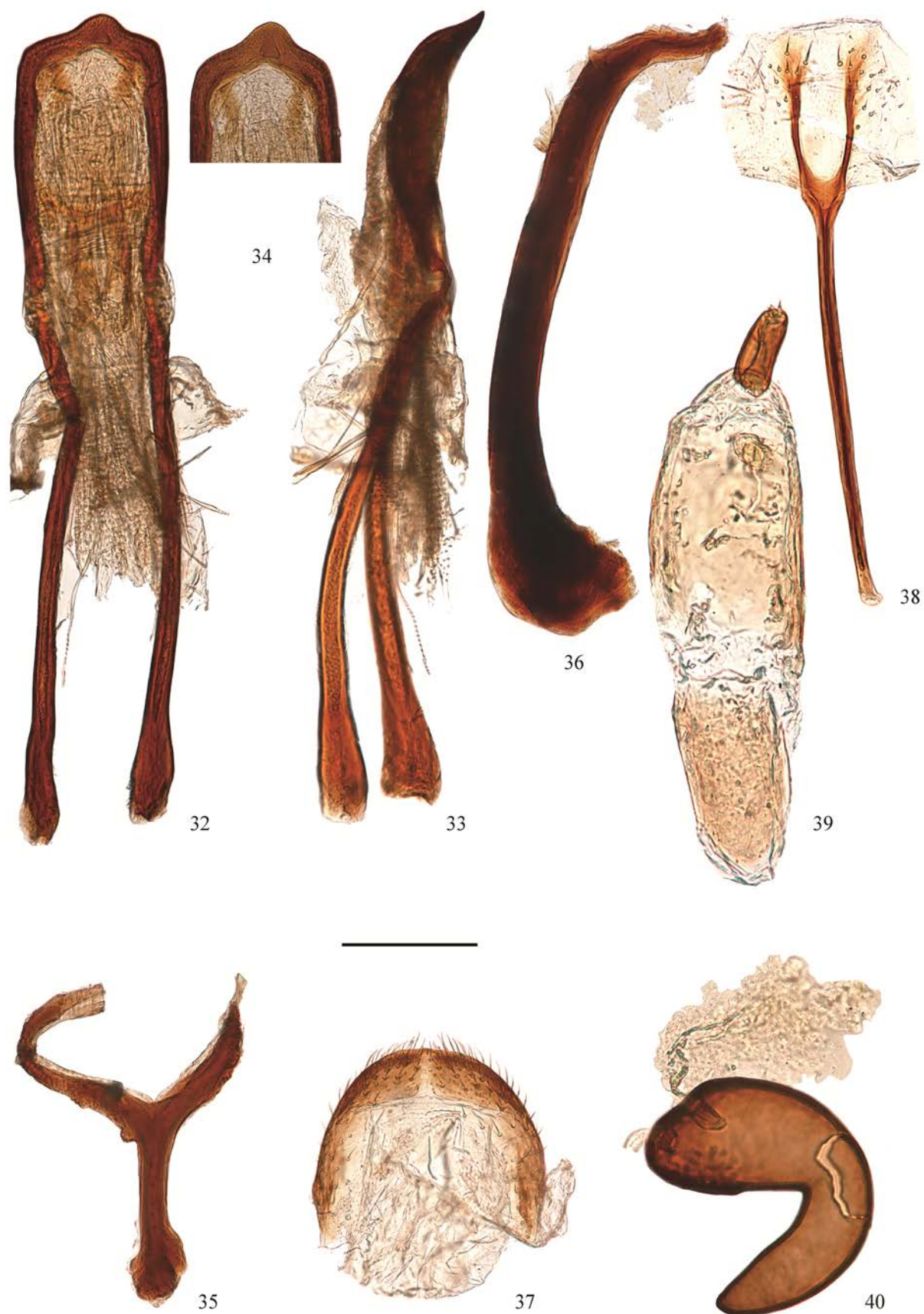
Type Specimens. Holotype. ♂ (IZCAS), "China: Guizhou, Zunyi, Suiyang-xian, Kuankuoshui, Xiangguangshan-cun, 4-VI-2010, leg. Z. Wang, IOZ(E)1803073". Paratypes. 1♀, same data as holotype but "IOZ(E)1803619" (IZCAS); Guizhou, Zunyi, Suiyang-xian, Kuankuoshui, Jinzi-cun, 1♀, 3-VI-2010, leg. Z. Wang, IOZ(E)1802495 (IZCAS); Guizhou, Zunyi, Suiyang-xian, Kuankuoshui, Gongtong-gou, 1♀, 3-VI-2010, leg. Z. Wang, IOZ(E)1803089 (IZCAS).

Description. Male (holotype). LB 2.36 mm; LR 1.03 mm; WP 0.87 mm; LP 0.77 mm; WE 1.44 mm; LE 1.54 mm. Habitus as shown in Figures 27–29.

Vestiture. Ventrites (Fig. 30) I and II clothed with short and apically pinnate white scales on disc, and with oval to



Figures 27–31. *Proscleropterus rudis* Colonnelli, Qin & Huang, **sp. nov.**, male. 27, 29. Dorsal habitus. 28. Lateral habitus. 30. Ventrites. 31. Pygidium. Scale bars: 29–31 = 0.50 mm.



Figures 32–40. *Prosclopterus rudis* Colonnelli, Qin & Huang, **sp. nov.**, male and female genitalia, from Guizhou, China. 32–36. Male. 32. Aedeagus, dorsal view. 33. Aedeagus, lateral view. 34. Apex of the aedeagal body, dorsal view. 35. Tegmen. 36. Sternites IX. 37–40. Female. 37. Tergite VIII. 38. Sternite VIII. 39. Coxite and stylus. 40. Spermatheca. Scale bars: 32–38 = 0.20 mm; 39–40 = 0.40 mm.

lanceolate white scales mingled with sparse brown clavate scales on sides; ventrites III and IV with a row of sparse oval scales; ventrite V bearing dense hair-like brown scales on median concavity, and white oval and clavate scales on sides.

Head (Figs 9–10). Rostrum slender, 1.38 times as long as pronotum, 4.78 times as long as wide at apex, evenly curved; subparallel-sided from base to antennal insertion, then moderately and gradually widened towards apex, where it is 1.15 times as wide as base. Antennae inserted at 0.44 length of rostrum from apex; scape moderate in length, evidently clavate, round and fringed with 2–3 short setae at apex; scape 1.15 times as long as the funicle, length ratio of funicular segments I: II: III: IV: V: VI = 2.48: 0.79: 0.73: 1.04: 1.00: 1.25 and width ratio = 1.37: 1.08: 1.00: 1.12: 1.37: 1.67.

Pronotum (Figs 27, 29) 1.13 times as wide as long, 0.50 times as long and 0.61 times as wide as elytra. Pronotum with lateral sides subparallel on basal half, strongly convergent at the level of the median tubercles and then subparallel on apical 2/5.

Elytra (Figs 27–29) oval, 1.07 times as long as wide, 2.00 times as long as and 1.65 times as wide as pronotum, with strongly prominent humeri, with large sharp granules at base of interval VIII; widest at basal fifth, then gradually convergent towards apex. Striae with punctures separated by a distance about 2–3 times longer than their diameter. Interval I with a row of sparse granules on apical 3/4; interval II with 2–3 sparse granules on basal fifth and with some weakly convex granules on middle; interval III with 3 weakly convex granules near base and two moderately large oblong or round tubercles composed of 3–4 merged granules basad and apicad of middle; interval IV narrow, without tubercles, only bearing a few sharp granules along its entire length; interval V with rather large short 5-capitate tubercle near base, another small tubercle composed of 3 merged granules and a convex granule basad and apicad of middle on one elytron, the other bearing only a small tubercle composed of 2 merged granules, and a round 7-capitate tubercle on apical fourth; interval VI with sculpture similar to that of IV; interval VII with a few large sharp granules scattered along its basal half, and a weak smooth elongate tubercle composed of 2–3 merged smaller granules apicad of middle; interval VIII with large tubercle at base, then a weak smooth elongate one composed of 2–3 merged smaller granules apicad of middle, rest of interval VIII with simple, irregular granules; interval IX with a tubercle composed of 4 merged granules on basal third, and a weak smooth elongate one composed of 2–4 merged smaller granules apicad of middle, rest of interval IX and lateral intervals with simple, irregular granules.

Underside. Ventrites (Fig. 30) with coarse and moderately dense punctures; length ratio of ventrites I: II: III: IV: V = 5.03: 2.53: 1.04: 1.00: 2.67 and width ratio = 1.88: 1.55: 1.25: 1.16: 1.00. Pygidium (Fig. 31) moderately transverse, about 1.24 times as wide as long, coarsely and moderately punctured and with fine median carina.

Terminalia and genitalia. Penis (Figs 32–33) broad, relatively thick in lateral profile; sides weakly widening from base to apical sixth, then strongly convergent apically; apical projection (Fig. 34) blunt, rounded at apex. Endophallus (Fig. 32) with a pair of plate-like sclerites in the apical part, numerous rounded spicules in the median part, and a pair of tubular



Figures 41–43. Host plant of *Proscleropterus shennongjianus* Qin & Huang, **sp. nov.**, *Rubus eucalyptus* Focke (Rosaceae) from Shennongjia, Hubei, China.

structures at base. Sternite VIII broken during dissection; spiculum gastrale (Fig. 36) robust, bent leftward, and far exceeding in length the aedeagal body or its apodeme. Tegmen (Fig. 35) with apodeme slender, nearly as long as the diameter of the tegminal ring, weakly widened at apex.

Otherwise as in *P. shennongjianus* Qin & Huang, **sp. nov.**

Female ($n=3$). LB 2.46–2.74 mm (mean, 2.63 mm). LR 1.20–1.28 mm (mean, 1.25 mm). WP 0.87–0.91 mm (mean, 0.89 mm). LP 0.81–0.89 mm (mean, 0.84 mm). WE 1.56–1.68 mm (mean, 1.60 mm). LE 1.46–1.69 mm (mean, 1.59 mm).

Rostrum (Figs 11–12) slightly slenderer than that of male, 1.45–1.57 times as long as pronotum, about 1.21 times as long as in males. Antennae inserted just basad of middle of rostrum.

Pronotum 0.98–1.11 times as wide as long.

Elytra 0.94–1.03 times as long as wide.

Tibiae simple, not mucronate.

Ventrites I and II moderately inflated, sparsely punctured. Ventrite V with shallow median concavity. Pygidium smaller than that of male, 1.22 times wider than long.

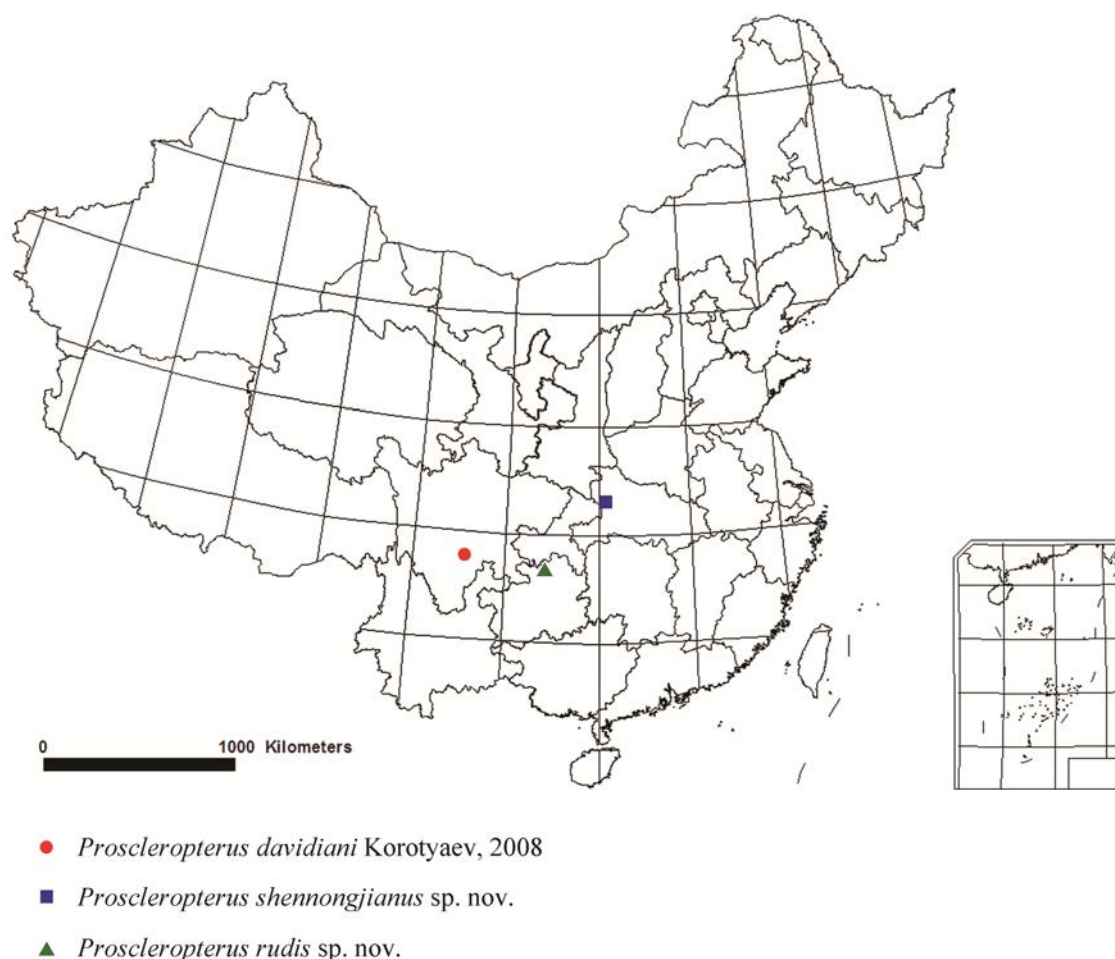
Terminalia and genitalia. Tergite VIII (Fig. 37) with pair of combs of dense, long setae along apical margin. Sternite VIII (Fig. 38) with a pair of patches of several minute setae near apex; arms slender and apically fuse, nearly 0.4 times as long as apodeme, nearly half as long as coxite and stylus combined. Coxites (Fig. 39) robust, subdivided into two pieces, nearly 5.5 times as long as styli; styli apicolaterally inserted, moderate in length, nearly 2.2 times as long as wide. Spermatheca (Fig. 40) C-shaped, collum slightly convex; ramus indistinct, outline almost uniformly continuous; cornu slender, strongly curved and attenuate.

Otherwise as in male.

Etymology. The species name is a Latin word “*rudis*” meaning “coarse”, to indicate its roughly sculptured elytra.

Distribution. China (Guizhou; Fig. 44).

Biological notes. Plant association unknown.



Figures 44. Geographic distribution of *Proscleropterus* in China.

Remarks. The new species differs from *P. shennongjianus* Qin & Huang, **sp. nov.** in having plumper body, with wider pronotum subparallel-sided on apical 2/5, oval elytra with sides gradually convergent towards apex, whereas *P. shennongjianus* Qin & Huang, **sp. nov.** has more elongate body, pronotum subparallel-sided on apical half, subcordate elytra with sides evenly convergent towards apex. Moreover, the two species have different distribution of tubercles on elytral intervals.

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